

THE MATHEMATICS TEACHER

*An Official Journal of
The National Council of Teachers of Mathematics
(Incorporated)*

Classified Index, Volume 74 1981

Author Index

- Ahl, David. Computer Games in Mathematics Education. Nov., 653-56.
- Allen, Betty R. Games and Projects. Oct., 543-44.
- Anderson, Bill D., and John F. Lamb, Jr. The Mathematical Aspects of a Lunar Shuttle Landing. Oct., 549-53.
- Anderson, Robert, and Jane Keller. A Model of 3-Space. May, 350-53.
- Anderson, Ronald E., Daniel L. Klassen, and David C. Johnson. In Defense of a Comprehensive View of Computer Literacy—a Reply to Luehrmann. Dec., 687-90.
- Anick, Constance Martin, Thomas P. Carpenter, and Carol Smith. Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.
- Aviv, Cherie A., and Sid Rachlin. Magic Cubes: A Total Experience. Sept., 464-72, 492.
- Azzolino, Aggie. Pythagoras on Pyramids. Oct., 537-41.
- Baker, Betty L. Hubbard High School Mathematics Contest. Feb., 124-25.
- Becker, Jerry P., and Kathy C. Hsi. Mathematical Olympiad Competitions in the People's Republic of China. Sept., 421-33.
- Bezuszka, Stanley J., S.J. Even Perfect Numbers—an Update. Sept., 460-63.
- Boas, Ralph P. Snowfalls and Elephants, Pop Bottles and Pi. Jan., 49-55. *See also* May, 388.
- Boldt, Chris. Mu Alpha Theta in Two-Year Colleges: A Good Bet. Jan., 44-45.
- Boyd, James N. Rectangles with Weighted Sides. Jan., 36-38.
- Brannan, Richard, and Scott McFadden. Spirolaterals. Apr., 279-81, 285.
- Braun, Ludwig. Help!!! What Computer Should I Buy??? Nov., 593-98.
- Carlson, Ronald J. Buffon's Needle Problem on a Microcomputer. Nov., 638-40.
- Carmony, Lowell. Analysis of a Truck Driver's Square Root Algorithm. Feb., 144-49.
- Carpenter, Thomas P., Constance Martin Anick, and Carol Smith. Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.
- Carpenter, Thomas P., and Elizabeth Fennema. Sex-related Differences in Mathematics: Results from National Assessment. Oct., 554-59.
- Carpenter, Thomas P., Mary Kay Corbitt, Henry S. Kepner, Jr., Mary Montgomery Lindquist, and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Carroll, Barbara. We Want Drill! Nov., 622-23.
- Channell, Dwayne E. Using Calculators to Fill Your Table. Mar., 199-202.
- Clyde, Donald, and Don Inman. Computer Applications. Nov., 618-19.
- Conklin, Kenneth R. Using Determinants and Computers to Recognize Dependent and Inconsistent Linear Systems. Nov., 641-46.
- Corbitt, Mary Kay, Thomas P. Carpenter, Henry S. Kepner, Jr., Mary Montgomery Lindquist, and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Csongor, Julianna. A Flowchart of Factoring Methods. Feb., 116-17.
- Doblin, Stephen A. Why Did It Work, and Will It Always? Jan., 35-36.
- Doebeling, Mary Jo. The Mathematics of Buying a Car: A Basic Skills Unit. Mar., 184-86, 238.
- Dolan, Daniel T. Some Irrational Results with Irrational Numbers. Apr., 258-61.
- Dossey, John A. Do All Graphs Have Points with Integral Coordinates? Sept., 455-57.
- Duncan, David R., and Bonnie H. Litwiller. Randomness, Normality, and Hypothesis Testing: Experiences for the Statistics Class. May, 368-74.
- Fawcett, George. Camera Calculations. May, 366-67, 398.
- Fawcett, George, and George Knill. Estimating the Size of Wildlife Populations. Oct., 548, 571.
- . The Mathematics of Sight. Nov., 636-37.
- . Skid Marks Estimate Speed. Dec., 722-24.
- Fennema, Elizabeth, and Thomas P. Carpenter. Sex-related Differences in Mathematics: Results from National Assessment. Oct., 554-59.
- Flick, T. Michael. Encounter with Introductory Calculus. Oct., 546-47.
- Flusser, Peter. An Ancient Problem. May, 389-90.
- Gannon, Gerald E., and David L. Pagni. The Golden Mean and an Intriguing Congruence Problem. Dec., 725-28, 745.
- Gaughan, Edward D., and Robert J. Wisner. A Measured Metric Statement. Apr., 262-65.
- Gawronski, Jane D. Computer Literacy and School Mathematics. Nov., 613-14.
- Gesshel-Green, Herb. Getting Started in a High School: A Case Study. Nov., 610-12.
- Goldstein, Eleanor M. A Mean, but Kind, Theorem. Sept., 440-42.

THE MATHEMATICS TEACHER

*An Official Journal of
The National Council of Teachers of Mathematics
(Incorporated)*

Classified Index, Volume 74 1981

Author Index

- Ahl, David. Computer Games in Mathematics Education. Nov., 653-56.
- Allen, Betty R. Games and Projects. Oct., 543-44.
- Anderson, Bill D., and John F. Lamb, Jr. The Mathematical Aspects of a Lunar Shuttle Landing. Oct., 549-53.
- Anderson, Robert, and Jane Keller. A Model of 3-Space. May, 350-53.
- Anderson, Ronald E., Daniel L. Klassen, and David C. Johnson. In Defense of a Comprehensive View of Computer Literacy—a Reply to Luehrmann. Dec., 687-90.
- Anick, Constance Martin, Thomas P. Carpenter, and Carol Smith. Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.
- Aviv, Cherie A., and Sid Rachlin. Magic Cubes: A Total Experience. Sept., 464-72, 492.
- Azzolino, Aggie. Pythagoras on Pyramids. Oct., 537-41.
- Baker, Betty L. Hubbard High School Mathematics Contest. Feb., 124-25.
- Becker, Jerry P., and Kathy C. Hsi. Mathematical Olympiad Competitions in the People's Republic of China. Sept., 421-33.
- Bezuska, Stanley J., S.J. Even Perfect Numbers—an Update. Sept., 460-63.
- Boas, Ralph P. Snowfalls and Elephants, Pop Bottles and Pi. Jan., 49-55. *See also* May, 388.
- Boldt, Chris. Mu Alpha Theta in Two-Year Colleges: A Good Bet. Jan., 44-45.
- Boyd, James N. Rectangles with Weighted Sides. Jan., 36-38.
- Brannan, Richard, and Scott McFadden. Spirolaterals. Apr., 279-81, 285.
- Braun, Ludwig. Help!!! What Computer Should I Buy??? Nov., 593-98.
- Carlson, Ronald J. Buffon's Needle Problem on a Microcomputer. Nov., 638-40.
- Carmony, Lowell. Analysis of a Truck Driver's Square Root Algorithm. Feb., 144-49.
- Carpenter, Thomas P., Constance Martin Anick, and Carol Smith. Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.
- Carpenter, Thomas P., and Elizabeth Fennema. Sex-related Differences in Mathematics: Results from National Assessment. Oct., 554-59.
- Carpenter, Thomas P., Mary Kay Corbitt, Henry S. Kepner, Jr., Mary Montgomery Lindquist, and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Carroll, Barbara. We Want Drill! Nov., 622-23.
- Channell, Dwayne E. Using Calculators to Fill Your Table. Mar., 199-202.
- Clyde, Donald, and Don Inman. Computer Applications. Nov., 618-19.
- Conklin, Kenneth R. Using Determinants and Computers to Recognize Dependent and Inconsistent Linear Systems. Nov., 641-46.
- Corbitt, Mary Kay, Thomas P. Carpenter, Henry S. Kepner, Jr., Mary Montgomery Lindquist, and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Csongor, Julianna. A Flowchart of Factoring Methods. Feb., 116-17.
- Doblin, Stephen A. Why Did It Work, and Will It Always? Jan., 35-36.
- Doebeling, Mary Jo. The Mathematics of Buying a Car: A Basic Skills Unit. Mar., 184-86, 238.
- Dolan, Daniel T. Some Irrational Results with Irrational Numbers. Apr., 258-61.
- Dossey, John A. Do All Graphs Have Points with Integral Coordinates? Sept., 455-57.
- Duncan, David R., and Bonnie H. Litwiller. Randomness, Normality, and Hypothesis Testing: Experiences for the Statistics Class. May, 368-74.
- Fawcett, George. Camera Calculations. May, 366-67, 398.
- Fawcett, George, and George Knill. Estimating the Size of Wildlife Populations. Oct., 548, 571.
- . The Mathematics of Sight. Nov., 636-37.
- . Skid Marks Estimate Speed. Dec., 722-24.
- Fennema, Elizabeth, and Thomas P. Carpenter. Sex-related Differences in Mathematics: Results from National Assessment. Oct., 554-59.
- Flick, T. Michael. Encounter with Introductory Calculus. Oct., 546-47.
- Flusser, Peter. An Ancient Problem. May, 389-90.
- Gannon, Gerald E., and David L. Pagni. The Golden Mean and an Intriguing Congruence Problem. Dec., 725-28, 745.
- Gaughan, Edward D., and Robert J. Wisner. A Measured Metric Statement. Apr., 262-65.
- Gawronski, Jane D. Computer Literacy and School Mathematics. Nov., 613-14.
- Gesshel-Green, Herb. Getting Started in a High School: A Case Study. Nov., 610-12.
- Goldstein, Eleanor M. A Mean, but Kind, Theorem. Sept., 440-42.

- Gourdouze, Robbyn. Keeping Calculators Ready. Oct., 529-31.
- Gray, Kenneth G., and Kenneth J. Travers. The Monte Carlo Method: A Fresh Approach to Teaching Probabilistic Concepts. May, 327-34.
- Greenes, Carole. Editorial: The Computer in Mathematics Education. Nov., 588-89.
- Greitzer, Samuel L. The Tenth U.S.A. Mathematical Olympiad. Dec., 709-10.
- Grinstein, Louise S. Some Recent References from the Mathematics Teacher. Sept., 449-50.
- Hartman, Janet. Approximating Logarithms Intuitively. Apr., 276-77.
- Hay, Louise. Using the Computer to Help Prove Theorems. Feb., 132-38.
- Heck, William, Bob Kansky, and Jerry Johnson. Getting Hard-nosed about Software: Guidelines for Evaluating Computerized Instructional Materials. Nov., 600-4.
- Heiny, Robert L. Gambling, Casinos, and Game Simulation. Feb., 139-43. *See also* Sept., 484.
- Hendrickson, A. Dean. Discovery in Advanced Algebra with Concrete Models. May, 353-58. *See also* Sept., 484.
- Higginson, William. Mathematizing "Frogs": Heuristics, Proof, and Generalization in the Context of a Recreational Problem. Oct., 505-15.
- Hinders, Duane C. Monte Carlo, Probability, Algebra, and Pi. May, 335-39.
- Hirsch, Christian R. Those Amazing Triangles. Sept., 444-48.
- Hirsh, Ronnie. Motivating Students in Arithmetic Drill: 110. Mar., 190-91.
- Hirstein, James J. The Second National Assessment in Mathematics: Area and Volume. Dec., 704-8.
- Hoffer, Alan. Geometry Is More Than Proof. Jan., 11-18.
- Horak, Virginia M., and Willis J. Horak. Geometric Proofs of Algebraic Identities. Mar., 212-16, 231.
- Horak, Willis J., and Virginia M. Horak. Geometric Proofs of Algebraic Identities. Mar., 212-16, 231.
- Houser, Larry L. Baseball Monte Carlo Style. May, 340-41.
- Hsi, Kathy C., and Jerry P. Becker. Mathematical Olympiad Competitions in the People's Republic of China. Sept., 421-33.
- Inman, Don, and Donald Clyde. Computer Applications. Nov., 618-19.
- Jamski, William D. Introducing Standard Deviation. Mar., 197-98.
- . Rating College Passers. Sept., 451-52.
- . Spherical Geodesics. Mar., 227-28, 236. *See also* Oct., 502.
- Johnson, David C., Ronald E. Anderson, and Daniel L. Klassen. In Defense of a Comprehensive View of Computer Literacy—a Reply to Luehrmann. Dec., 687-90.
- Johnson, Jerry, Bob Kansky, and William Heck. Getting Hard-nosed about Software: Guidelines for Evaluating Computerized Instructional Materials. Nov., 600-4.
- Kansky, Bob, William Heck, and Jerry Johnson. Getting Hard-nosed about Software: Guidelines for Evaluating Computerized Instructional Materials. Nov., 600-4.
- Kapp, Lehmann E., Jr. Salt in the Round. Oct., 531-34.
- Keller, Jane, and Robert Anderson. A Model of 3-Space. May, 350-53.
- Kennedy, Jane B. Graphing Polynomials with Computer Assistance. Oct., 516-19.
- Kepner, Henry S., Jr., Thomas P. Carpenter, Mary Kay Corbitt, Mary Montgomery Lindquist, and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Kerr, Donald R., Jr. A Geometry Lesson from National Assessment. Jan., 27-32.
- Kissane, Barry V. "Metric" Paper. Apr., 266-68.
- Kjellberg, Roger. $1 = 3$ and Pizza Too. Mar., 194-97.
- Klassen, Daniel L., Ronald E. Anderson, and David C. Johnson. In Defense of a Comprehensive View of Computer Literacy—a Reply to Luehrmann. Dec., 687-90.
- Kluepfel, Charles. When Are Logarithms Used? Apr., 250-53. *See also* Dec., 681.
- Knill, George. Baseball and the Midway. Apr., 286-87.
- . International Standard Book Numbers. Jan., 47-48.
- . Mathematics in Forensic Science. Feb., 126, 149.
- . Relative Velocity: Vectors with a Difference. Mar. 209-11.
- Knill, George, and George Fawcett. Estimating the Size of Wildlife Populations. Oct., 548, 571.
- . The Mathematics of Sight. Nov., 636-37.
- . Skid Marks Estimate Speed. Dec., 722-24.
- Kosel, Marge. Computer Bibliography. Nov., 658-59, 646.
- Lamb, John F., Jr., and Bill D. Anderson. The Mathematical Aspects of a Lunar Shuttle Landing. Oct., 549-53.
- Lappan, Glenda, and Mary Jean Winter. Some Problems with Fractions for the Middle School. Feb., 102-4, 143.
- Lichtenberg, Betty K. Some Excellent Sources of Material for Mathematics Clubs. Apr., 284-85.
- Lichtenberg, Donovan R. A Group Whose Elements Are Functions. Oct., 521-23.
- Lindquist, Mary Montgomery, Thomas P. Carpenter, Mary Kay Corbitt, Henry S. Kepner, Jr., and Robert E. Reys. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Linn, Andrew. If Logarithms Are Defined as Areas, Why Does $\ln a + \ln b = \ln ab$? Apr., 254-56. *See also* Dec., 694.
- Litwiller, Bonnie H., and David R. Duncan. Randomness, Normality, and Hypothesis Testing: Experiences for the Statistics Class. May, 368-74.
- . SSA: When Does It Yield Triangle Congruence? Feb., 107-9.
- Luehrmann, Arthur. Computer Literacy—What Should It Be? Dec., 682-86.
- McDonald, James R. Factor Cards: A Device for GCF. May, 349-50.
- McFadden, Scott, and Richard Brannan. Spirolaterals. Apr., 279-81, 285.
- McGarvey, Craig. Mathematics and Miseducation:

- Toward the Next School Curricula. Feb., 90-95.
See also Sept., 408.
- McGinty, Robert L., and John Van Beynen. Geometric Interpretation of Series. Mar., 218-20.
- McKim, James. The Problem of Galaxa: Infinite Area Versus Finite Volume. Apr., 294-96.
- Manhard, Warren B., 2d. Is Exponentiation Commutative? Jan., 56-60. See also Oct., 501.
- Markowitz, Lee. Area = Perimeter. Mar., 222-23.
- Martin, J. Susan. The Fibonacci Sequence. Jan., 39-42, 70. See also Apr., 303.
- May, Beverly A. A New Approach to Decimal Division. Apr., 273-76.
- Meneeley, Merrill A. Decoding Messages. Nov., 629-32.
- Mercer, Gene B. Writing Equations Containing Radicals. Apr., 278.
- Metz, James. Mathematics Expressed in Trade-marks. Sept., 437-40.
- Meyer, Ruth Ann, and James E. Riley. Transportation—a Rich Source of Story Problems. Mar., 180-83, 240.
- Miller, William A. Calculator Tic-Tac-Toe: A Game of Estimation. Dec., 713-16.
- Morin, Dennis D. OOPS: Order of Operations Squared. Dec., 717.
- Morris, Janet. Math Anxiety: Teaching to Avoid It. Sept., 413-17.
- Nemecsek, Paul M. A Student-presented Mathematics Club Program—Infinities of Numbers. Dec., 711-12.
- Noble, John W. Computerized Testing: A New System of Evaluation. May, 385-87.
- Norris, Donald O. Let's Put Computers into the Mathematics Curriculum. Jan., 24-26. See also Sept., 410; Oct., 499-500.
- Olson, Alton T. Building Birdhouses with Vectors and Linear Homogeneous Equations. Apr., 288-92.
- Pagni, David L., and Gerald E. Gannon. The Golden Mean and an Intriguing Congruence Problem. Dec., 725-28, 745.
- Paul, Clyde. The Mathematics Teacher Shortage—Some Solutions. Mar., 173-78. See also Sept., 407-8; Dec., 680.
- Perry, Sally. Skits in the Mathematics Class. May, 364-65, 374.
- Petroski, Henry J. The Mathematical Preparation for Engineering. Feb., 127-31.
- Rachlin, Sid, and Cherie A. Aviv. Magic Cubes: A Total Experience. Sept., 464-72, 492.
- Reimann, Robert. Wayne Valley Computer Club. Nov., 633-34, 656.
- Reys, Robert E., Thomas P. Carpenter, Mary Kay Corbitt, Henry S. Kepner, Jr., Mary Montgomery Lindquist. What Are the Chances of Your Students Knowing Probability? May, 342-44.
- Richbart, Lynn A. Probability and Statistics for Grades 9-11. May, 346-48.
- Riley, James E., and Ruth Ann Meyer. Transportation—a Rich Source of Story Problems. Mar., 180-83, 240.
- Rizzuto, James J. A Simple Proof from Elementary Algebra. Oct., 525-27.
- Robbins, Bill, and Ross Taylor. Getting Started in a Junior High School: A Case Study. Nov., 605-8.
- Roberts, Nancy. Introducing Computer Simulation into the High School: An Applied Mathematics Curriculum. Nov., 647-52.
- Rosenthal, Dorothy B. A Primer of Domestic Mathematics. Mar., 224-26.
- Rosnick, Peter. Some Misconceptions concerning the Concept of Variable. Sept., 418-20.
- Rowe, James K. Right Triangle Proportions. Feb., 111-14.
- Rubinstein, J. Infinite Geometric Series—a Child's View. Oct., 534-35.
- Ryoti, Don E. Measuring Squares to Prepare for Pi. May, 375-79.
- Schwartzman, Steven. The Bliss Principle—or What You Don't Know Won't Hurt You. Jan., 61-64. See also Sept., 412.
- Sconyers, James M. Prime Numbers—a Locust's View. Feb., 106.
- Sherard, Wade H. III. Why Is Geometry a Basic Skill? Jan., 19-21, 60.
- Shipley, Lois Q. Chi Alpha Mu Junior Mathematics Clubs. Mar., 205-6.
- Smith, Carol, Constance Martin Anick, and Thomas P. Carpenter. Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.
- Smith, Scott G. Some Circular Reasoning. Mar., 191-94.
- Smith, Susan M. Calculating Algebra. Feb., 119-22.
- Smith, W. Ashley, Jr. A Christmas-Theme Test. Dec., 718-19.
- Snook, H. M. $7.5 + 7.5 = 15$. Feb., 114-16.
- Snover, Stephen L., and Mark A. Spikell. Problem Solving and Programming: The License Plate Curiosity. Nov., 616-17.
- Sobel, Max A. Recipe for Revival: Recommendations for the Twenty-first Century. Sept., 485-90.
- Spikell, Mark A., and Stephen L. Snover. Problem Solving and Programming: The License Plate Curiosity. Nov., 616-17.
- Srinivasan, P. K. Sighting the Value of Pi. May, 380-84.
- Sterba, Don. Probability and Basketball. Nov., 624-27, 681.
- Stiff, Lee V. Redirecting Scientific Notation. Jan., 33-34. See also Dec., 680.
- Taylor, Ross, and Bill Robbins. Getting Started in a Junior High School: A Case Study. Nov., 605-8.
- Thompson, Richard B. Reporting College Placement Scores and Grades to High Schools. Apr., 269-72.
- Thornton, Carol A. A New Look, Pythagoras! Feb., 98-100. See also Dec., 694.
- Todd, Philip, and Doron Zeilberger. A Variation on a Very Familiar Algorithm. Sept., 474-75, 490.
- Tolleson, J. Sam, and Ernest Woodward. Detective Stories in Junior High School Mathematics. Sept., 434-36.
- Travers, Kenneth J., and Kenneth G. Gray. The Monte Carlo Method: A Fresh Approach to Teaching Probabilistic Concepts. May, 327-34.
- Trimarco, Richard. Time Out for Traveling. May, 359-62, 398.
- Trono, Tony. 80 Proofs from around the World. Dec., 695-96.

Van Beynen, John, and Robert L. McGinty. Geometric Interpretation of Series. Mar., 218-20.

Vance, Irvin E. A Partridge in a Pear Tree, a Stack of Cubes, and Four Buckets of Balls. Dec., 698-703.

West, Stephen F. Practice for the Holidays. Dec., 718, 720-21.

Williams, Robert T. Beneath the Surface of the Mathematics Teacher Shortage. Dec., 691-94.

Winter, Mary Jean, and Glenda Lappan. Some Prob-

lems with Fractions for the Middle School. Feb., 102-4, 143.

Wisner, Robert J., and Edward D. Gaughan. A Measured Metric Statement. Apr., 262-65.

Woodward, Ernest, and J. Sam Tolleson. Detective Stories in Junior High School Mathematics. Sept., 434-36.

Zeddies, Melvin L. Creativity in General Mathematics. Mar., 187-89.

Zeilberger, Doron, and Philip Todd. A Variation on a Very Familiar Algorithm. Sept., 474-75, 490.

Subject Index

Algebra

New Products, 151-52.

New Publications, 72, 74, 76, 234, 300, 479-82, 663, 669, 735.

Analysis of a Truck Driver's Square Root Algorithm. Feb., 144-49.

An Ancient Problem. May, 389-90.

Approximating Logarithms Intuitively. Apr., 276-77.

Area = Perimeter. Mar., 222-23.

The Bliss Principle—or What You Don't Know Won't Hurt You. Jan., 61-64. *See also* Sept., 412.

Building Birdhouses with Vectors and Linear Homogeneous Equations. Apr., 288-92.

Calculating Algebra. Feb., 119-22.

Decoding Messages. Nov., 629-32.

Discovery in Advanced Algebra with Concrete Models. May, 353-58. *See also* Sept., 484.

Do All Graphs Have Points with Integral Coordinates? Sept., 455-57.

Estimating the Size of Wildlife Populations. Oct., 548, 571.

A Flowchart of Factoring Methods. Feb., 116-17.

Geometric Proofs of Algebraic Identities. Mar., 212-16, 231.

Graphing Polynomials with Computer Assistance. Oct., 516-19.

A Group Whose Elements Are Functions. Oct., 521-23.

If Logarithms Are Defined as Areas, Why Does $\ln a + \ln b = \ln ab$? Apr., 254-56.

Is Exponentiation Commutative? Jan., 56-60. *See also* Oct., 501.

Keeping Calculators Ready. Oct., 529-31.

Magic Cubes: A Total Experience. Sept., 464-72, 492.

The Mathematical Aspects of a Lunar Shuttle Landing. Oct., 549-53.

Mathematical Olympiad Competitions in the People's Republic of China. Sept., 421-33.

Mathematics in Forensic Science. Feb., 126, 149.

The Mathematics of Sight. Nov., 636-37.

Mathematizing "Frogs": Heuristics, Proof, and Generalization in the Context of a Recreational Problem. Oct., 505-15.

"Metric" Paper. Apr., 266-68.

New Approach to Decimal Division. Apr., 273-76.

1 = 3 and Pizza Too. Mar., 194-97.

OOPS: Order of Operations Squared. Dec., 717.

A Partridge in a Pear Tree, a Stack of Cubes, and

Four Buckets of Balls. Dec., 698-703.

Practice for the Holidays. Dec., 718, 720-21.

A Primer of Domestic Mathematics. Mar., 224-26.

A Simple Proof from Elementary Algebra. Oct., 525-27.

Skid Marks Estimate Speed. Dec., 722-24.

Some Irrational Results with Irrational Numbers. Apr., 258-61.

Some Misconceptions concerning the Concept of Variable. Sept., 418-20.

A Student-presented Mathematics Club Program—Infinities of Numbers. Dec., 711-12.

When Are Logarithms Used? Apr., 250-53. *See also* Dec., 681.

Why Did It Work, and Will It Always? Jan., 35-36.

Writing Equations Containing Radicals. Apr., 278.

Applications

New Projects, 477.

New Publications, 157, 235, 300.

Baseball Monte Carlo Style. May, 340-41.

Baseball and the Midway. Apr., 286-87.

Camera Calculations. May, 366-67, 398.

Estimating the Size of Wildlife Populations. Oct., 548, 571.

International Standard Book Numbers. Jan., 47-48.

The Mathematical Aspects of a Lunar Shuttle Landing. Oct., 549-53.

Mathematics in Forensic Science. Feb., 126, 149.

Mathematics of Buying a Car: A Basic Skills Unit. Mar., 184-86, 238.

The Mathematics of Sight. Nov., 636-37.

Prime Numbers—a Locust's View. Feb., 106.

Primer of Domestic Mathematics. Mar., 224-26.

Relative Velocity: Vectors with a Difference. Mar., 209-11.

Skid Marks Estimate Speed. Dec., 722-24.

Snowfalls and Elephants, Pop Bottles and Pi. Jan., 49-55. *See also* May, 388.

Spherical Geodesics. Mar., 227-28, 236. *See also* Oct., 502.

Transportation—a Rich Source of Story Problems. Mar., 180-83, 240.

When Are Logarithms Used? Apr., 250-53. *See also* Dec., 681.

Arithmetic

New Products, 66-67, 151, 298-99, 391, 661-63, 730-31.

New Publications, 75, 77, 233, 234, 479, 395, 735.
 Baseball and the Midway. Apr., 286-87.
 Calculator Tic-Tac-Toe: A Game of Estimation. Dec., 713-16.
 Camera Calculations. May, 366-67, 398.
 Creativity in General Mathematics. Mar., 187-89.
 Decoding Messages. Nov., 629-32.
 Detective Stories in Junior High School Mathematics. Sept., 434-36.
 Estimating the Size of Wildlife Populations. Oct., 548, 571.
 Even Perfect Numbers—an Update. Sept., 460-63.
 Factor Cards: A Device for GCF. May, 349-50.
 The Fibonacci Sequence. Jan., 39-42, 70. *See also* Apr., 303.
 International Standard Book Numbers. Jan., 47-48.
 Magic Cubes: A Total Experience. Sept., 464-72, 492.
 Mathematics of Buying a Car: A Basic Skills Unit. Mar., 184-86, 238.
 Measuring Squares to Prepare for Pi. May, 375-79.
 Motivating Students in Arithmetic Drill: 110. Mar., 190-91.
 OOPS: Order of Operations Squared. Dec., 717.
 Prime Numbers—a Locust's View. Feb., 106.
 Pythagoras on Pyramids. Oct., 537-41.
 Rating College Passers. Sept., 451-52.
 Redirecting Scientific Notation. Jan., 33-34. *See also* Dec., 680.
 $7.5 + 7.5 = 15$. Feb., 114-16.
 Sighting the Value of Pi. May, 380-84.
 Some Problems with Fractions for the Middle School. Feb., 102-4, 143.
 Time Out for Traveling. May, 359-62, 398.
 Transportation—a Rich Source of Story Problems. Mar., 180-83, 240.
 A Variation on a Very Familiar Algorithm. Sept., 474-75, 490.
 We Want Drill! Nov., 622-23.

Basic Skills

See "Curriculum" or content areas.

Book Reviews

See "New Publications" under content areas.

Calculus

New Products, 661.
 New Publications, 72-75, 233, 300, 302, 479, 668, 734.
 Encounter with Introductory Calculus. Oct., 546-47.
 Infinite Geometric Series—a Child's View. Oct., 534-35.
 A Mean, but Kind, Theorem. Sept., 440-42.
 Problem of Galaxa: Infinite Area versus Finite Volume. Apr., 294-96.
 Rectangles with Weighted Sides. Jan., 36-38.

Computers and Calculators

New Products, 67-68, 298, 663, 730, 732.
 New Projects, 230-31, 664-66, 733.
 New Publications, 73-76, 300, 302, 395-96, 479, 666-68, 736.
 Buffon's Needle Problem on a Microcomputer. Nov., 638-40.

Calculating Algebra. Feb., 119-22.
 Calculator Tic-Tac-Toe: A Game of Estimation. Dec., 713-16.
 Computer Applications. Nov., 618-19.
 Computer Bibliography. Nov., 658-59, 646.
 Computer Games in Mathematics Education. Nov., 653-56.
 Computer Literacy and School Mathematics. Nov., 613-14.
 Computer Literacy—What Should It Be? Dec., 682-86.
 Computerized Testing: A New System of Evaluation. May, 385-87.
 Getting Hard-nosed about Software: Guidelines for Evaluating Computerized Instructional Materials. Nov., 600-4.
 Getting Started in a High School: A Case Study. Nov., 610-12.
 Getting Started in a Junior High School: A Case Study. Nov., 605-8.
 Graphing Polynomials with Computer Assistance. Oct., 516-19.
 Help!!! What Computer Should I Buy??? Nov., 593-98.
 In Defense of a Comprehensive View of Computer Literacy—a Reply to Luehrmann. Dec., 687-90.
 Introducing Computer Simulation into the High School: An Applied Mathematics Curriculum. Nov., 647-52.
 Is Exponentiation Commutative? Jan., 56-60. *See also* Oct., 501.
 Let's Put Computers into the Mathematics Curriculum. Jan., 24-26. *See also* Sept., 410; Oct., 499-500.
 Problem Solving and Programming: The License Plate Curiosity. Nov., 616-17.
 Some Irrational Results with Irrational Numbers. Apr., 258-61.
 Some Problems with Fractions for the Middle School. Feb., 102-4, 143.
 Those Amazing Triangles. Sept., 444-48.
 Using Calculators to Fill Your Table. Mar., 199-202.
 Using Determinants and Computers to Recognize Dependent and Inconsistent Linear Systems. Nov., 641-46.
 Using the Computer to Help Prove Theorems. Feb., 132-38.
 Wayne Valley Computer Club. Nov., 633-34, 656.

Curriculum

See also content areas.

New Products, 66.
 New Projects, 154, 477-78.
 New Publications, 73, 76, 302, 397, 483, 737.
 Beneath the Surface of the Mathematics Teacher Shortage. Dec., 691-94.
 The Bliss Principle—or What You Don't Know Won't Hurt You. Jan., 61-64. *See also* Sept., 412.
 Chi Alpha Mu Junior Mathematics Clubs. Mar., 205-6.
 Gambling, Casinos, and Game Simulation. Feb., 139-43. *See also* Sept., 484.
 Hubbard High School Mathematics Contest. Feb., 124-25.
 Math Anxiety: Teaching to Avoid It. Sept., 413-17.
 The Mathematical Preparation for Engineering. Feb., 127-31.

Mathematics and Miseducation: Toward the Next School Curricula. Feb., 90-95. *See also* Sept., 408.

Mathematics Expressed in Trademarks. Sept., 437-40.

The Mathematics Teacher Shortage—Some Solutions. Mar., 173-78. *See also* Sept., 407-8; Dec., 680.

Mathematizing "Frogs": Heuristics, Proof, and Generalization in the Context of a Recreational Problem. Oct., 505-15.

Minorities and Mathematics: Results from the National Assessment of Educational Progress. Oct., 560-66.

Mu Alpha Theta in Two-Year Colleges: A Good Bet. Jan., 44-45.

Reporting College Placement Scores and Grades to High Schools. Apr., 269-72.

Sex-related Differences in Mathematics: Results from National Assessment. Oct., 554-59.

Skits in the Mathematics Class. May, 364-65, 374. Some Excellent Sources of Material for Mathematics Clubs. Apr., 284-85.

Some Recent References from the Mathematics Teacher. Sept., 449-50.

What Are the Chances of Your Students Knowing Probability? May, 342-44.

Discovery

See "Teaching Methods—Discovery."

Games and Puzzles

See "Teaching Methods—Games and Puzzles."

General Mathematics

See "Arithmetic," "Algebra," "Teaching Methods."

Geometry

New Products, 151, 391, 661.

New Publications, 75, 156, 394, 396, 483.

Area = Perimeter. Mar., 222-23.

Baseball and the Midway. Apr., 286-87.

Computerized Testing: A New System of Evaluation. May, 385-87.

80 Proofs from around the World. Dec., 695-96.

Geometric Interpretation of Series. Mar., 218-20.

Geometric Proofs of Algebraic Identities. Mar., 212-16, 231.

Geometry Is More Than Proof. Jan., 11-18.

A Geometry Lesson from National Assessment. Jan., 27-32.

The Golden Mean and an Intriguing Congruence Problem. Dec., 725-28, 745.

Let's Put Computers into the Mathematics Curriculum. Jan., 24-26. *See also* Sept., 410; Oct., 499-500.

Mathematical Olympiad Competitions in the People's Republic of China. Sept., 421-33.

A Model of 3-Space. May, 350-53.

A New Look, Pythagoras! Feb., 98-100. *See also* Dec., 694.

Pythagoras on Pyramids. Oct., 537-41.

Right Triangle Proportions. Feb., 111-14.

Salt in the Round. Oct., 531-34.

Some Circular Reasoning. Mar., 191-94.

Spherical Geodesics. Mar., 227-28, 236. *See also* Oct., 502.

Spirolaterals. Apr., 279-81, 285.

SSA: When Does It Yield Triangle Congruence? Feb., 107-9.

Using Calculators to Fill Your Table. Mar., 199-202.

Using the Computer to Help Prove Theorems. Feb., 132-38.

Why Is Geometry a Basic Skill? Jan., 19-21, 60.

Hand-held Calculators

See "Computers and Calculators."

History

New Publications, 156, 234, 302.

Mathematics and Miseducation: Toward the Next School Curricula. Feb., 90-95. *See also* Sept., 408.

Mathematics Laboratory

See "Teaching Methods—Laboratory."

Measurement

New Products, 299.

Measured Metric Statement. Apr., 262-65.

"Metric" Paper. Apr., 266-68.

Metric System

See "Measurement."

Minicalculators

See "Computers and Calculators."

NCTM

Affiliated Groups

Board Action on the 1980 Delegate Assembly Resolutions. Mar., 237-38.

Finances

Annual Financial Report. Apr., 315-16.

Auditor's Report. Apr., 316-18.

Meetings

Minutes of the Annual Business Meeting. Dec., 742-43.

Professional Dates. Jan., 80; Feb., 159-60; Mar., 239-40; Apr., 319-20; May, 399; Sept., 491; Oct., 583-84; Nov., 675; Dec., 744.

Officers, Committees, Projects, and Representatives

NCTM Affiliated Group Officers. Apr., 304-15.

Officers, Directors, Committees, Representatives, and Executive Staff (1981-82). Nov., 670-74.

President's Message

Recipe for Revival: Recommendations for the Twenty-first Century. Sept., 485-90.

Number Theory

See "Algebra" or "Arithmetic."

Opinions and Philosophies

Editorial: Software Reviews Are Coming. Mar., 166.
Editorial: The Computer in Mathematics Education.
Nov., 588-89.
Thanks from the Editorial Panel. Dec., 738-41.

Probability

Baseball Monte Carlo Style. May, 340-41.
Gambling, Casinos, and Game Simulation. Feb.,
139-43. *See also* Sept., 484.
Introducing Standard Deviation. Mar., 197-98.
The Monte Carlo Method: A Fresh Approach to
Teaching Probabilistic Concepts. May, 327-34.
Monte Carlo, Probability, Algebra, and Pi. May,
335-39.
Probability and Basketball. Nov., 624-27, 681.
Probability and Statistics for Grades 9-11. May,
346-48.
Snowfalls and Elephants, Pop Bottles and Pi. Jan.,
49-55. *See also* May, 388.
What Are the Chances of Your Students Knowing
Probability? May, 342-44.

Problem Solving

See "Curriculum" or content areas.

Statistics

New Publications, 736.
Probability and Statistics for Grades 9-11. May,
346-48.
Randomness, Normality, and Hypothesis Testing:
Experiences for the Statistics Class. May, 368-74.

Teacher Education

New Projects, 69-70.
New Publications, 76-77.
Beneath the Surface of the Mathematics Teacher
Shortage. Dec., 691-94.
The Mathematics Teacher Shortage—Some Solu-
tions. Mar., 173-78. *See also* Sept., 407-8; Dec.,
680.

Teaching Methods

New Projects, 392-94.

Discovery

Decoding Messages. Nov., 629-32.
Geometric Interpretation of Series. Mar., 218-20.
Geometric Proofs of Algebraic Identities. Mar., 212-
16, 231.
A Simple Proof from Elementary Algebra. Oct., 525-
27.

Games and Puzzles

Games and Projects. Oct., 543-44.
Motivating Students in Arithmetic Drill: 110. Mar.,
190-91.
We Want Drill! Nov., 622-23.

Laboratory

See also "Worksheets."

Discovery in Advanced Algebra with Concrete Mod-
els. May, 353-58. *See also* Sept., 484.
Factor Cards: A Device for GCF. May, 349-50.
Keeping Calculators Ready. Oct., 529-31.
Measuring Squares to Prepare for Pi. May, 375-79.
A Model of 3-Space. May, 350-53.
Pythagoras on Pyramids. Oct., 537-41.
Sighting the Value of Pi. May, 380-84.
Spirolaterals. Apr., 279-81, 285.
Those Amazing Triangles. Sept., 444-48.

Tests

New Products, 151.
New Publications, 395, 483.
A Christmas-Theme Test. Dec., 718-19.
Games and Projects. Oct., 543-44.
Hubbard High School Mathematics Contest. Feb.,
124-25.
Mathematical Olympiad Competitions in the Peo-
ple's Republic of China. Sept., 421-33.
The Second National Assessment in Mathematics:
Area and Volume. Dec., 704-8.
The Tenth U.S.A. Mathematical Olympiad. Dec.,
709-10.

Trigonometry

New Products, 151, 663, 732.
Geometric Interpretation of Series. Mar., 218-20.
Relative Velocity: Vectors with a Difference. Mar.,
209-11.

Visual Aids and Audiovisual Material

See "New Products" under content areas.

Worksheets

New Publications, 731, 737.
Calculating Algebra. Feb., 119-22.
Calculator Tic-Tac-Toe: A Game of Estimation.
Dec., 713-16.
A Christmas-Theme Test. Dec., 718-19.
Decoding Messages. Nov., 629-32.
Detective Stories in Junior High School Mathemat-
ics. Sept., 434-36.
The Fibonacci Sequence. Jan., 39-42, 70. *See also*
Apr., 303.
Practice for the Holidays. Dec., 718, 720-21.
Pythagoras on Pyramids. Oct., 537-41.
Skid Marks Estimate Speed. Dec., 722-24.
Spirolaterals. Apr., 279-81, 285.
Those Amazing Triangles. Sept., 444-48.
Time Out for Traveling. May, 359-62, 398.
Using Calculators to Fill Your Table. Mar., 199-202.



